## **PCT**





## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(21) International Application Number:  PCT/US99/16166 (22) International Filing Date:  16 July 1999 (16.07.99)  (30) Priority Data: 60/093,481  20 July 1998 (20.07.98)  US  (71) Applicant (for all designated States except US): INEX PHAR-MACEUTICALS CORPORATION [US/US]; Glenyon Business Park, 100–8900 Glenlyon Parkway, British Columbia V6K 3S4 (CA).  (72) Inventors; and (75) Inventors; and (75) Inventors/Applicants (for US only): BOEY, Anthony [CA/CA]; 419–2551 Parkview Lane, Port Coquitlam, British Columbia V3C 618 (CA). CHEN, Tao [CA/CA]; 9–7711 Minom Boulevard, Richmond, British Columbia V6K 128 (CA). Esther [CA/CA]: 14136 88th Published  (74) Agents: SNYDER, Joseph, R. et al.; Townsend and Townsen and Crew LLP, Two Embarcadero Center, 8th floor, Sa Francisco, CA 94111–3834 (US).  (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BC BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, IP, KE, KC KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MM, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SS, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZZ, CM, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MI RU, TJ, TM), European patent (AM, AZ, BY, KG, KZ, MI RU, TJ, TM), European patent (AM, AZ, BY, KG, KZ, MI RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DI Patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MI NE, SN, TD, TG).	1) International Patent Classification 7:		11) International Publication Number: WO 00/03683
and Crew LLP, Two Embarcadero Center, 8th floor, Sa Francisco, CA 94111-3834 (US).  (81) Priority Data: 60/093,481 20 July 1998 (20.07.98) US 61/10 Applicant (for all designated States except US): INEX PHAR-MACEUTICALS CORPORATION [US/US]; Glenyon Business Park, 100-8900 Glenlyon Parkway, Burnaby, British Columbia V6K 384 (CA).  (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BC, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GI, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KC, KY, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MF, MM, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SS, SS, SL, TI, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MI RU, TI, TM), European patent (AM, AZ, BY, KG, KZ, MI RU, TI, TM), European patent (AM, AZ, BY, KG, KZ, MI RU, TI, TM), European patent (AM, AZ, BY, KG, KZ, MI RU, TI, TM, TT, UA, UG, US, UZ, VN, DE, DES, FI, FR, GR, GR, IE, TI, LU, MC, NL, PT, SE), OAI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MI NE, SN, TD, TG).  (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, GB, GB, TI, TM, TT, UA, UG, US, UZ, VN, YU, ZZ, ZW, ARIPO patent (GH, GM, KE, LS, FW, KG, KZ, MI RU, TI, TM, TT, TT, UA, UG, US, UZ, VN, YU, ZZ, ZW, ARIPO patent (GH, GM, KE, LS, FW, SK, SL, TI, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MI RU, TI, TM, TM, European patent (AM, AZ, BY, KG, KZ, MI RU, TI, TM, TT, TT, UT, UT, NT, TT, UT, UT, NT, TT, UT, UT, NT, TT, TT, UT, UT, NT, TT, TT, TT, TT, TT, TT, TT, TT, T	A61K	A2	43) International Publication Date: 27 January 2000 (27.01.00
1) Applicant (for all designated States except US): INEX PHAR-MACEUTICALS CORPORATION (US/US); Glenyon Business Park, 100-8900 Glenlyon Parkway, Burnaby, British Columbia V6K 3S4 (CA).  12) Inventors; and [CA/CA]; 419-2551 Parkview Lane, Port Coquitlam, British Columbia V3C 6I8 (CA). CHEN, Tao [CA/CA]; 9-7711 Minorn Boulevard, Richmond, British Columbia V3S 7M6 (CA). WHEELER, Jeffrey, J. [US/CA]; 6179 17A Street, Surrey, British Columbia V3S 7M6 (CA). GRAHAM, Roger [CA/CA]; 2638 West 7th Avenue, Vancouver, British Columbia V6K 1Z1 (CA).  40 Title: LIPOSOMAL ENCAPSULATED NUCLEIC ACID—COMPLEXES  BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GI, GD, GG, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KC, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MI MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, S SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, Z, WARIPO patent (AH, AZ, BY, KG, KZ, MI RU, TJ, TM), European patent (AH, AZ, BY, KG, KZ, MI RU, TJ, TM), European patent (AH, AZ, BY, KG, KZ, MI RU, TJ, TM), European patent (AH, AZ, BY, KG, KZ, MI RU, TJ, TM), European patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MI NE, SN, TD, TG).  Paul, G. [CA/CA]; 19081 Sundale Court, Surrey, British Columbia V3S 7M6 (CA). WHEELER, Jeffrey, J. [US/CA]; 6179 17A Street, Surrey, British Columbia V34 8G9 (CA). SCHERRER, Peter [CH/CA]; 2664 Birch, Vancouver, British Columbia V6K 1Z1 (CA).  24 Title: LIPOSOMAL ENCAPSULATED NUCLEIC ACID—COMPLEXES  57) Abstract  This invention relates to liposomes which are useful for the introduction of nucleic acids into cells. The liposomes of the presequent entran a condensing agent—nucleic acid complex and are suitable for nucleic acid—transfer delivery vehicles in clinical use.	1) International 1-pp-1-1-1-1		and Crew LLP, Two Embarcadero Center, 8th 1100r, Sai
54) Title: LIPOSOMAL ENCAPSULATED NUCLEIC ACID-COMPLEXES  (57) Abstract  This invention relates to liposomes which are useful for the introduction of nucleic acids into cells. The liposomes of the present invention entrap a condensing agent—nucleic acid complex and are suitable for nucleic acid—transfer delivery vehicles in clinical use.	71) Applicant (for all designated States except US): INE MACEUTICALS CORPORATION [US/US]; Business Park, 100–8900 Glenlyon Parkway, British Columbia V6K 3S4 (CA).  72) Inventors; and 75) Inventors/Applicants (for US only): BOEY, [CA/CA]; 419–2551 Parkview Lane, Port British Columbia V3C 6J8 (CA). CHEN, Tao 9–7711 Minorn Boulevard, Richmond, British V64 1Z3 (CA). LENG, Esther [CA/CA]; 1 Avenue, Surrey, British Columbia V3W 3L6 (C. Paul, G. [CA/CA]; 19081 Sundale Court, Surrey, British Columbia V34 SCHERRER, Peter [CH/CA]; 2664 Birch, British Columbia V6H 2T5 (CA). GRAHA [CA/CA]; 2638 West 7th Avenue, Vancouv	Antho Coquitla [CA/C. 4136 8: A). TARrey, Brit. I. [US/C. 8G9 (C	GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KC, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, S SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MI, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAH patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MI, NE, SN, TD, TG).  Published  Without international search report and to be republished upon receipt of that report.
	(57) Abstract  This invention relates to liposomes which are use invention entrap a condensing agent-nucleic acid comp	eful for the	e introduction of nucleic acids into cells. The liposomes of the prese e suitable for nucleic acid-transfer delivery vehicles in clinical use.